Godsey, Cindi

From: Randy O'Neil <r.oneil@furiealaska.com>
Sent: Monday, March 03, 2014 1:14 PM

To: Godsey, Cindi Cc: Mayers, Timothy

Subject: Re: Drilling Estimates KLU#1A

KLU#3 was an unusual well. There were none of the expected drilling glitches that usually take days resolve. According to the Furie Company Man, drilling commenced on April 26 and the TD was reached on May 14, 2013. After that, back reaming was performed prior to logging. That would have produced chips that would be extracted from the mud and discharged overboard and was conducted over a 3-day period. Casing and plugs were installed installed cemented and the well was prepped for a flow test. Completion fluid consisting of CaCl brine was used to displace the mud. So this well took an unusually short time to drill, and a long time in completion as a potential producer if the flow test was successful.

Hope that gives you what is needed to explain the very short drilling time to TD.

Randy

From: "Godsey, Cindi" < Godsey.Cindi@epa.gov > Date: Friday, February 28, 2014 at 10:19 AM

To: Randy O'Neil < r.oneil@furiealaska.com >

Cc: "Mayers, Timothy" <

Subject: RE: Drilling Estimates KLU#1A

Randy,

Now I just want to double check the dates. For KLU#3, the dates you gave us had you on location for 81 days but only drilling 18. Comparing other well info, the on location time seems on par with the others but the drilling time seems short:

	KLU #1 2011	KLU#1 2012	KLU#2	KLU#3	KLU#4
Onsite	96	108	72	81	80
Spud to EOD	57	80	65	18	53

Please confirm that the duration info is correct for KLU#3.

Thanks.

Cindi

From: Randy O'Neil [mailto:r.oneil@furiealaska.com]

Sent: Wednesday, February 26, 2014 2:29 PM

To: Godsey, Cindi **Cc:** Mayers, Timothy

Subject: Re: Drilling Estimates KLU#1A

KLU #3 was drilled to a total depth of 10,004' which is the furthest penetration by the drill bit. The tubulars and bottom plug are set to depth of 9,919'. We hope to bring KLU #3 on line as a producer during 2014.

Randy

From: "Godsey, Cindi" < Godsey.Cindi@epa.gov>
Date: Wednesday, February 26, 2014 at 1:29 PM
To: Randy O'Neil < r.oneil@furiealaska.com>

Cc: "Mayers, Timothy" <

Subject: RE: Drilling Estimates KLU#1A

Randy,

Thank you for the clarification on KLU#2. It is also nice to know that KLU#4 is going to be continued this coming season. But I asked about the final depth for KLU#3 not #4.

Thanks.

From: Randy O'Neil [mailto:r.oneil@furiealaska.com]

Sent: Friday, February 21, 2014 2:12 PM

To: Godsey, Cindi **Cc:** Mayers, Timothy

Subject: Re: Drilling Estimates KLU#1A

Hello Cindi,

I requested Bob Laule's help on the questions. To explain the side track issue on KLU#2, we backed out of the hole slightly and proceeded to divert the bit into a different trajectory. Side tracks as technically when a hole lined with casing and the bit is used to break through the casing and proceed with drilling another hole.

Your other question: <u>The information you provided below does not agree with the EOW Report which states that drilling began on August 29. Might that be the date the rig was set and then drilling started on Sept 2?</u> Looking back, the EOW report data was based on the mud reports produced by Mi Swaco as the daily report summary showing depth and progress was not available at the time. I am uncertain how the discrepancy occurred, but the daily report summary should be the most accurate. Although the drilling permit does not allow Furie to actually drill a well, it does allow for preparation such as setting up the drive pipe and conductor in preparation for actual drilling. This is likely the reason for the different dates.

I have returned to the office today and will poor over the data again to ensure that any data discrepancies are corrected or explained and submit an explanation if the data is inaccurate.

I hope we have not lost the focus for why you were asking these questions in the first place. Our starting casing size is generally 17.5 inches. If you like I can provide a complete casing diagram for each well.

Randy O'Neil Furie Operating Anchorage 907-277-3726 Office 907-223-7454 cell

From: "Godsey, Cindi" < Godsey.Cindi@epa.gov>
Date: Wednesday, February 12, 2014 at 1:29 PM
To: Randy O'Neil < r.oneil@furiealaska.com>

Cc: "Mayers, Timothy" <
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Subject: RE: Drilling Estimates KLU#1A

Randy,

There looks like a typo for KLU#3. On all the other holes, the last depth matches the total depth but not on #3. Was the other 289' drilled at 9.875 or some other diameter?

Cindi

From: Randy O'Neil [mailto:r.oneil@furiealaska.com]

Sent: Tuesday, February 11, 2014 5:11 PM

To: Godsey, Cindi **Cc:** Mayers, Timothy

Subject: Re: Drilling Estimates KLU#1A

Please see attached. The diameters are actual gauge hole sizes. This should better reflect actual fluid volume. If this helps, I can diagram what the hole looks like and give you total volumes. Will be on the road tomorrow, but checking email when I can.

Randy

From: Randy O'Neil <r.oneil@furiealaska.com> Date: Tuesday, February 11, 2014 at 2:41 PM To: "Godsey, Cindi" < Godsey. Cindi@epa.gov> Cc: "Mayers, Timothy" < Mayers. Timothy@epa.gov>

Subject: Re: Drilling Estimates KLU#1A

No problem getting the data. Drilling can mean actually making depth or any number of different activities where everything is static. As when a tool breaks loose and the driller goes "fishing'. Logging is another where pull instrumentation on a wire rope from bottom to top. BOP testing must occur at intervals or when DNR orders. "Tripping" that is pulling pipe out of the hole and putting it back in takes a lot of time. When bits and pieces of the cuttings go over the shakers, that is when mud is discharged, otherwise there is mud circulation, but little discharge. Most of the mud send down the shunt line is in conjunction with drilling progress.

Randy

From: "Godsey, Cindi" < Godsey. Cindi@epa.gov> Date: Tuesday, February 11, 2014 at 7:53 AM To: Randy O'Neil <r.oneil@furiealaska.com>

Cc: "Mayers, Timothy" <

Subject: RE: Drilling Estimates KLU#1A

Randy,

Thanks for your patience. I appreciate your checking in because the more I learn, the more I seem to need to tweak what I am asking for.

So maybe I should explain what I am trying to do so you will know why I want the information. In the Cook Inlet ODCE, we made some estimations of discharge volumes based the days a rig was on site which turned out to be oh so very wrong. Since some discharges start even before drilling starts, I would like to know the following:

Date the rig was in place Date drilling started Date drilling ended Date the rig moved off-site

From this, we should be able to estimate the daily discharges like domestic wastewater and spread the discharge of muds and cuttings over the appropriate period.

The information you provided below does not agree with the EOW Report which states that drilling began on August 29. Might that be the date the rig was set and then drilling started on Sept 2?

Cindi

From: Randy O'Neil [mailto:r.oneil@furiealaska.com]

Sent: Monday, February 10, 2014 3:46 PM

To: Godsey, Cindi

Subject: Drilling Estimates KLU#1A

Just checking with you on how I am setting up the data for drilling time.

The daily logs for KLU#1 indicate the spud date (approval to spud) was received on 2-Sep-2011. Actual drilling progress makes bottom depth on 2-Nov-2011. Instrument logging, plugging & cementing continues to 15-Nov-11. From spud to permanent P&A is 72 days for the 2011 season. The hole was scheduled to be re-entered in 2012.

I will also set up inner casing diameters and hole volumes for KLU#1B, 2, 3 and 4 in addition to re-confirming drilling duration.

Any changes or additions needed?

Randy O'Neil Furie Operating Anchorage 907-277-3726 Office 907-223-7454 cell